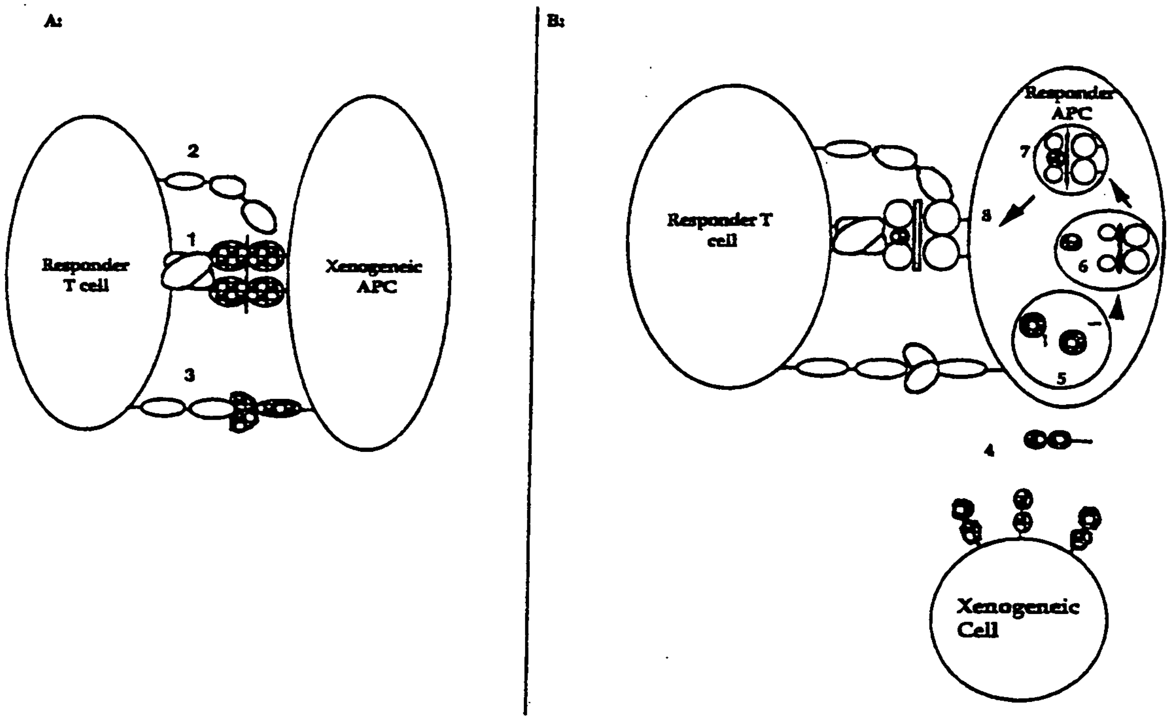
09868605

Figure 1



09868605

Figure 2

GCATGGATCCATGGGACTGAGTAACATTCTCTTTG

1 ATGGGACTGAGTAACATTCTCTTTGTGATGGTCCTCCT
39 GCTCTCTGGTGCTGCCTCCTTGAAAAGTCAGGCATATTTCAATGAGA
86 CTGGAGAACTGCCGTGCCATTTTACAAACTCGCAGAACCTAAGCCTG
133 GATGAGCTGGTCATATTTTGGCAGGACCAGGATAACCTGGTTCTCTA
181 CGAGCTATACCGAGGCCAAGAGAAGCCTCATAATGTTAATTCCAAG
227 TATATGGGTCGCACAAGCTTTGACCAGGCCACCTGGACCCTGAGACT
274 CCACAACGTTCAAATCAAGGACAAGGGCTCATATCAATGTTTCATC
321 CATCATAAAGGGCCGCATGGACTTGTTCCTATCCACCAGATGAGTTC
368 TGACCTATCATTGCTTGCTAACTTCAGTCAACCTGAAATAAACCTAC
415 TTACTAATCACACAGAAAATTCTGTCATAAATTTGACCTGCTCATCT
462 ACACAAGGCTACCCAGAACCCCAGAGGATGTATATGTTGCTAAATA
509 CGAAGAATTCAACCACTGAGCATGATGCTGACATGAAGAAATCTCA
556 AAATAACATCACGGAACTCTACAATGTATCAATCAGGGTGTCTCTT
602 CCCATCCCTCCCGAGACAAATGTGAGCATCGTCTGTGTCCTGCAACTT
649 GAGCCAAGCAAGACACTGCTTTTCTCCCTACCTTGTAATATAGATGC
696 AAAGCCACCTGTGCAACCCCCTGTCCCAGACCACATCCTCTGGATTGC
743 AGCTCTACTTGTAACAGTGGTCGTTGTGTGTGGGATGGTGTCCTTTGT
790 AACACTAAGGAAAAGGAAGAAGCAGCCTGGCCCCTCTAATGA
837 ATGTGGTGAAACCATCAAAATGAACAGGAAGGCGAGTGAACAAAC
884 TAAGAACAGAGCAGAAGTCCATGAACGATCTGATGATGCCCAGTGT
931 GATGTTAATATTTTAAAGACAGCCTCAGATGACAACAGTACTACAG

GACAACAGTACTACAG

978 ATTTTTAATTAAAGAGTAAACTCC

ATTTTTAAGTCGACATGC

Figure 3

```
   1  CACCGCGGTG CGGCCGCTCT AGAACTAGTG GATCCATGGG ACTGAGTAAC
  51  ATTCTCTTTG GGATGGTCCT CCTGCTCTCT GGTGCTGCCT CCTTGAAAAG
 101  TCAGGCATAT TTCAATGAGA CTGGAGAACT GCCGTGCCAT TTTACAAACT
 151  CGCAGAACCT AAGCCTGGAT GAGCTGGTCA TATTTTGGCA GGACCAGGAT
 201  AACCTGGTTC TCTACGAGCT ATACCGAGGC CAAGAGAAGC CTCATAATGT
 251  TAATTCCAAG TATATGGGTC GCACAAGCTT TGACCAGGCC ACCTGGACCC
 301  TGAGACTCCA CAACGTTCAA ATCAAGGACA AGGGCTCATA TCAATGTTTC
 351  ATCCATCATA AAGGGCCGCA TGGACTTGTT CCTATCCACC AGATGAGTTC
 401  TGACCTATCA GTGCTTGCTA ACTTCAGTCA ACCTGAAATA AACCTACTTA
 451  CTAATCACAC AGAAAATTCT GTCATAAATT TGACCTGCTC ATCTACACAA
 501  GGCTACCCAG AACCCCAGAG GATGTATATG TTGCTAAATA CGAAGAATTC
 551  AACCACTGAG CATGATGCTG ACATGAAGAA ATCTCAAAAT AACATCACGG
 601  AACTCTACAA TGTATCAATC AGGGTGTCTC TTCCCATCCC TCCCGAGACA
 651  AATGTGAGCA TCGTCTGTGT CCTGCAACTT GAGCCAAGCA AGACACTGCT
 701  TTTCTCCCTA CCTTGTAATA TAGATGCAAA GCCACCTGTG CAACCCCCTG
 751  TCCCAGACCA CATCCTCTGG ATTGCAGCTC TACTTGTAAC AGTGGTCGTT
 801  GTGTGTGGGA TGGTGTCCTT TGTAACACTA AGGAAAAGGA AGAAGAAGCA
 851  GCCTGGCCCC TCTAATGAAT GTGGTGAAAC CATCAAAATG AACAGGAAGG
 901  CGAGTGAACA AACTAAGAAC AGAGCAGAAG TCCATGAACG ATCTGATGAT
 951  GCCCAGTGTG ATGTTAATAT TTTAAAGACA GCCTCAGATG ACAACAGTAC
1001  TACAGATTTT TAAGTCGACC TCGAGGGGGG GCCCGGTACC AGCTTTTGTT
```

Figure 4: Comparison of the nucleotide sequence of CD86(i) with the published sequence for porcine CD86.

```
                                           10        20        30        40
                                   ATGGGACTGAGTAACATTCTCTTTGTGATGGTCCTCCTGCTCTCTGG
                                   ************************ *********************
CACCGCGGTGGCGGCCGCTCTAGAACTAGTGGATCCATGGGACTGAGTAACATTCTCTTTGGGATGGTCCTCCTGCTCTCTGG
        10        20        30        40        50        60        70        80

  50        60        70        80        90       100       110       120
TGCTGCCTCCTTGAAAAGTCAGGCATATTTCAATGAGACTGGAGAACTGCCGTGCCATTTTACAAACTCGCAGAACCTAAGC
**********************************************************************************
TGCTGCCTCCTTGAAAAGTCAGGCATATTTCAATGAGACTGGAGAACTGCCGTGCCATTTTACAAACTCGCAGAACCTAAGC
      90       100       110       120       130       140       150       160

0        140       150       160       170       180       190       200       210
CTGGATGAGCTGGTCATATTTTGGCAGGACCAGGATAACCTGGTTCTCTACGAGCTATACCGAGGCCAAGAGAAGCCTCATA
**********************************************************************************
CTGGATGAGCTGGTCATATTTTGGCAGGACCAGGATAACCTGGTTCTCTACGAGCTATACCGAGGCCAAGAGAAGCCTCATA
     170       180       190       200       210       220       230       240

      220       230       240       250       260       270       280       290
TGTTAATTCCAAGTATATGGGTCGCACAAGCTTTGACCAGGCCACCTGGACCCTGAGACTCCACAACGTTCAAATCAAGGA
*********************************************************************************
TGTTAATTCCAAGTATATGGGTCGCACAAGCTTTGACCAGGCCACCTGGACCCTGAGACTCCACAACGTTCAAATCAAGGA
   250       260       270       280       290       300       310       320

    300       310       320       330       340       350       360       370
AGGGCTCATATCAATGTTTCATCCATCATAAAGGGCCGCATGGACTTGTTCCTATCCACCAGATGAGTTCTGACCTATCA
********************************************************************************
AGGGCTCATATCAATGTTTCATCCATCATAAAGGGCCGCATGGACTTGTTCCTATCCACCAGATGAGTTCTGACCTATCA
330       340       350       360       370       380       390       400       410

  380       390       400       410       420       430       440       450
GCTTGCTAACTTCAGTCAACCTGAAATAAACCTACTTACTAATCACACAGAAAATTCTGTCATAAATTTGACCTGCTCAT
********************************************************************************
GCTTGCTAACTTCAGTCAACCTGAAATAAACCTACTTACTAATCACACAGAAAATTCTGTCATAAATTTGACCTGCTCAT
      420       430       440       450       460       470       480       490

460       470       480       490       500       510       520       530
CACAAGGCTACCCAGAACCCCAGAGGATGTATATGTTGCTAAATACGAAGAATTCAACCACTGAGCATGATGCTGACAT
*******************************************************************************
CACAAGGCTACCCAGAACCCCAGAGGATGTATATGTTGCTAAATACGAAGAATTCAACCACTGAGCATGATGCTGACAT
```

```
 540       550       560       570       580       590       600       610       620
GAAGAAATCTCAAAATAACATCACGGAACTCTACAATGTATCAATCAGGGTGTCTCTTCCCATCCCTCCCGAGACAAATGTG
..................................................................................
GAAGAAATCTCAAAATAACATCACGGAACTCTACAATGTATCAATCAGGGTGTCTCTTCCCATCCCTCCCGAGACAAATGTG
     580       590       600       610       620       630       640       650
```

```
     630       640       650       660       670       680       690       700
AGCATCGTCTGTGTCCTGCAACTTGAGCCAAGCAAGACACTGCTTTTCTCCCTACCTTGTAATATAGATGCAAAGCCACCTG
..................................................................................
AGCATCGTCTGTGTCCTGCAACTTGAGCCAAGCAAGACACTGCTTTTCTCCCTACCTTGTAATATAGATGCAAAGCCACCTG
   660       670       680       690       700       710       720       730
```

```
     710       720       730       740       750       760       770       780
TGCAACCCCCTGTCCCAGACCACATCCTCTGGATTGCAGCTCTACTTGTAACAGTGGTCGTTGTGTGTGGGATGGTGTCCTT
..................................................................................
TGCAACCCCCTGTCCCAGACCACATCCTCTGGATTGCAGCTCTACTTGTAACAGTGGTCGTTGTGTGTGGGATGGTGTCCTT
740       750       760       770       780       790       800       810       820
```

```
     790       800       810       820       830       840       850       860
TGTAACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGCCCCTCTAATGAATGTGGTGAAACCATCAAAATGAACAGGAAGGCG
..................................................................................
TGTAACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGCCCCTCTAATGAATGTGGTGAAACCATCAAAATGAACAGGAAGGCG
         830       840       850       860       870       880       890       900
```

```
870       880       890       900       910       920       930       940
GTGAACAAACTAAGAACAGAGCAGAAGTCCATGAACGATCTGATGATGCCCAGTGTGATGTTAATATTTTAAAGACAGCCT
.................................................................................
GTGAACAAACTAAGAACAGAGCAGAAGTCCATGAACGATCTGATGATGCCCAGTGTGATGTTAATATTTTAAAGACAGCCT
      910       920       930       940       950       960       970       980
```

```
50         960       970       980       990
GATGACAACAGTACTACAGATTTTTAATTAAAGAGTAAACTCC
........................... .  .    .
GATGACAACAGTACTACAGATTTTTAAGTCGACCTCGAGGGGGGCCCGGTACCAGCTTTTGTT
   990      1000      1010      1020      1030      1040      1050
```

FIGURE 5

```
Contig
Murine B7-2
Porcine CD68(i)
Human B7.2

ACCATGGGACTGAGTAACATTCTCTTTGTGATGGTCTTCCTGCTCTCT
-CCATGGGACTGAGTAACATTCTCTTTGGGATGGTCCTCCTGCTCTCT
ACCATGGGCTTGGCAATCCTTATCTTTGTGACAGTCTTGCTGATCTCA
ACTATGGGACTGAGTAACATTCTCTTTGTGATGGCCTTCCTGCTCTCT

GGTGCTGCTTCCBTGAAGABTCAAGCTTATTTCAATGAGACTGCAGAHCTGCCGTGCCAATTTA
GGTGCTGCCTCCTTGAAAAGTCAGGCATATTTCAATGAGACTGGAGAACTGCCGTGCCATTTTA
GATGCTGTTTCCGTGGAGACGCAAGCTTATTTCAATGGGACTGCATATCTGCCGTGCCCATTTA
GGTGCTGCTCCTCTGAAGATTCAAGCTTATTTCAATGAGACTGCAGACCTGCCATGCCAATTTG

CAAACTCTCAAAACCTAAGCCTGAGTGAGCTGGTAGTATTTTGGCAGGACCAGGAAAACTTGGT
CAAACTCGCAGAACCTAAGCCTGGATGAGCTGGTCATATTTTGGCAGGACCAGGATAACCTGGT
CAAAGGCTCAAAACATAAGCCTGAGTGAGCTGGTAGTATTTTGGCAGGACCAGCAAAAGTTGGT
CAAACTCTCAAAACCAAAGCCTGAGTGAGCTAGTAGTATTTTGGCAGGACCAGGAAAACTTGGT

TCTGTACGAGCTATACTTAGGCAAAGAGAAACTTGATAGTGTTAATTCCAAGTATATGGCCGC
TCTCTACGAGCTATACCGAGGCCAAGAGAAGCCTCATAATGTTAATTCCAAGTATATGGGTCGC
TCTGTACGAGCACTATTTGGGCACAGAGAAACTTGATAGTGTGAATGCCAAGTACCTGGGCCGC
TCTGAATGAGGTATACTTAGGCAAAGAGAAATTTGACAGTGTTCATTCCAAGTATATGGGCCGC

ACAAGCTTTGACHVGGACAVCTGGACCCTGAGACTTCACAATGTTCAGATCAAGGACAAGGGCT
ACAAGCTTTGACCAGGCCACCTGGACCCTGAGACTCCACAACGTTCAAATCAAGGACAAGGGCT
ACGAGCTTTGACAGGAACAACTGGACTCTACGACTTCACAATGTTCAGATCAAGGACATGGGCT
ACAAGTTTTGATTCGGACAGTTGGACCCTGAGACTTCACAATCTTCAGATCAAGGACAAGGGCT

CGTATCAATGTTTCATCCATCAHAAAVVGCCCACAGGAHTDATTCBCATCCACCAGATGADTTC
CATATCAATGTTTCATCCATCATAAAGGGCCGCATGGACTTGTTCCTATCCACCAGATGAGTTC
CGTATGATTGTTTTATACAAAAAAAGCCACCCACAGGATCAATTATCCTCCAACAGACATTAAC
TGTATCAATGTATCATCCATCACAAAAAGCCCACAGGAATGATTCGCATCCACCAGATGAATTC

TGAACTGTCAGTGCTTGCTAACTTCAGTCAACCTGAAATAAAACTAVTTHCTAATVTAACAGAA
TGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAAACCTACTTACTAATCACACAGAA
AGAACTGTCAGTGATCGCCAACTTCAGTGAACCTGAAATAAAACTGGCTCAGAATGTAACAGGA
TGAACTGTCAGTGCTTGCTAACTTCAGTCAACCTGAAATAGTACCAATTTCTAATATAACAGAA
```

FIGURE 7

```
       10        20        30        40        50        60        70        80
CCAAAGAAAAAGTGATTTGTCATTGCTTTATAGACTGTAAGAAGAGAACATCTCAGAAGTGGAGTCTTACCCTGAAATCAAA
                                                            GAGTTTTATACCTCAATAGACT
                                                                     10        20

       90       100       110       120       130       140       150       160
GGATTTAAAGAAAAAGTGGAATTTTTCTTCAGCAAGCTGTGAAACTAAATCCACAACCTTTGGAGACCCAGGAACACCCTCC
CTTACTAGTTTCTCTTTTTCAGGTTGTGAAACTCAACCTTCAAAGACACTCTGTTCCATTTCTGTGGACTAATAGGATCATC
       30        40        50        60        70        80        90       100

      170       180       190       200       210       220       230       240
AATCTCTGTGTGTTTTGTAAACATCACTGGAGGGTCTTCTACGTGAGCAATTGGATTGTCATCAGCCCTGCCTGTTTTGCAC
TTTAGCATCTGCCGGGTGGATGCCATCCAGGCTTCTTTTTCTACATCTCTGTTTCTCGATTTTTGTGAGCCTAGGAGGTGCC
      110       120       130       140       150       160       170       180

  250       260       270       280       290       300       310       320
CTGGGAAGTGCCCTGGTCTTACTTGGGTCCAAATTGTTGGCTTTCACTTTTGACCCTAAGCATCTGAAGCCATGGGCCACAC
TAAGCTCCATTGGCTCTAGATTCCTGGCTTTCCCCATCATGTTCTCCAAAGCATCTGAAGCTATGGCTTGCAATTGTCAGTT
  190       200       210       220       230       240       250       260

 330       340       350       360       370       380       390       400       410
ACGGAGGCAGGGAACATCACCATCCAAGTGTCCATACCTCAATTTCTTTCAGCTCTTGGTGCTGGCTGGTCTTTCTCACTTC
GATGCAGGATACACCACTCCTCAAGTTTCCATGTCCAAGGCTCATTCTTCTCTTTGTGCTGCTGATTCGTCTTTCACAAGTG
 270       280       290       300       310       320       330       340       350

       420       430       440       450       460       470       480       490
TGTTCAGGTGTTATCCACGTGACCAAGGAAGTGAAAGAAGTGGCAACGCTGTCCTGTGGTCACAATGTTTCTGTTGAAGAGC
TCTTCAGATGTTGATGAACAACTGTCCAAGTCAGTGAAAGATAAGGTATTGCTGCCTTGCCGTTACAACTCTCCTCATGAAG
       360       370       380       390       400       410       420       430

       500       510       520       530       540       550       560       570
TGGCACAAACTCGCATCTACTGGCAAAAGGAGAAGAAAATGGTGCTGACTATGATGTCTGGGGACATGAATATATGGCCCGA
ATGAGTCTGAAGACCGAATCTACTGGCAAAAACATGACAAAGTGGTGCTGTCTGTCATTGCTGGGAAACTAAAAGTGTGGCC
       440       450       460       470       480       490       500       510
```

FIGURE 5-1

```
Contig            AATTCTGDCATAAATTTGACCTGCTCATCTAHACAAGGTTACCCAGAACCTAAGAAGATGTATD
Murine B7-2       AATTCTGTCATAAATTTGACCTGCTCATCTACACAAGGCTACCCAGAACCCCAGAGGATGTATA
Porcine CD68(i)   AATTCTGGCATAAATTTGACCTGCACGTCTAAGCAAGGTCACCCGAAACCTAAGAAGATGTATT
Human B7.2        AATGTGTACATAAATTTGACCTGCTCATCTATACACGGTTACCCAGAACCTAAGAAGATGAGTG

                  TTTTGCTAAVTACNAAGAATTCAACTAHTGAGTATGATGVTAACATGCAGAAATCTCAAGATAA
                  TGTTGCTAAATACGAAGAATTCAACCACTGAGCATGATGCTGACATGAAGAAATCTCAAAATAA
                  TTCTGATAACT------AATTCAACTAATGAGTATGGTGATAACATGCAGATATCACAAGATAA
                  TTTTGCTAAGAACCAAGAATTCAACTATCGAGTATGATGGTATTATGCAGAAATCTCAAGATAA

                  TGTCACAGAACTGTACAATGTHTCCATCAGCBTGTCTCTTTCATTCCCTGATGDTACGAGNNAT
                  CATCACGGAACTCTACAATGTATCAATCAGGGTGTCTCTTCCCATCCCTCCCGAGACAA---AT
                  TGTCACAGAACTGTTCAGTATCTCCAACAGCCTCTCTCTTTCATTCCCGGATGGTGTGTGGCAT
                  TGTCACAGAACTGTACGACGTTTCCATCAGCTTGTCTGTTTCATTCCCTGATGTTACGAGCAAT

                  ATGACCATCGTCTGTGTTCTGGAAACTGAGNCAANCAAGACNCNGCTTTTCTCCHACCTTTCA
                  GTGAGCATCGTCTGTGTCCTGCAACTTGAGCCAAGCAAGACACTGCTTTTCTCCCTACCTTGTA
                  ATGACCGTTGTGTGTGTTCTGGAAACGGAGTCAATGAAGA------TTTCCTCCAAACCTCTCA
                  ATGACCATCTTCTGTATTCTGGAAACTGA------CAAGACGCGGCTTTTATCTTCACCTTTCT

                  ATATAGATCHAGAGBHHCCTNNNCAACCTCCTNNCCCAGACCACATBCNNTGGATTACAGCTBT
                  ATATAGATGCAAAGCCACCTGTGCAACCCCCTGTCCCAGACCACATCCTCTGGATTGCAGCTCT
                  ATTTCACTCAAGAGTTTCC------ATCTCCTCAAACGTATTGGAAG---GAGATTACAGCTTC
                  CTATAGAGCTTGAGGACCCT---CAGCCTCC---CCCAGACCACATTCCTTGGATTACAGCTGT

                  ACTTNNAACAGTGGTCVTTVTVTGTGTGATGGTGTTCTNTVTAATTCTATGGAAANNNAAGAAG
                  ACTTGTAACAGTGGTCGTTGTGTGTGGGATGGTGTCCTTTGTAACACTAAGGAAA---AGGAAG
                  AGTT---ACTGTGGCCCTCCTCCTTGTGATGCTGCTC---ATCATTGTATG---TCACAAGAAG
                  ACTTCCAACAG---TTATTATATGTGTGATGGTTTTCTGTCTAATTCTATGGAAATGGAAGAAG

                  AAGAAGCAGCCTVGCAVCTCTAATAAATGTGGNNNAACCAHCAAAATGGAGAGGGANGNGAGTG
                  AAGAAGCAGCCTGGCCCCTCTAATGAATGTGGTGAAACCATCAAAATGAACAGGAAGGCGAGTG
                  CCGAATCAGCCTAGCAGGCCCAGCAA------CACAGCCTCTAAGTTAGAGCGGGA---TAGT-
                  AAGAAGCGGCCTCGCAACTCTTATAAATGTGG---AACCAACACAATGGAGAGGGAAGAGAGTG

                  AACANACTAAGAACAGAGAAAAANTCCATNNACCTGAAVGATCTGATGAAGCCCAGNGTGNTNT
                  AACAAACTAAGAACAGAGCAGAAGTCCAT------GAACGATCTGATGATGCCCAGTGTGATGT
                  AACG--CTG---ACAGAGAGA----CTATCAACCTGAAGGAACT--TGAACCCCA---------
                  AACAGACCAAGAAAAGAGAAAAAATCCATATACCTGAAAGATCTGATGAAGCCCAGCGTGTTTT

                  TAANADTTNNAAGACAGCTTCANNNGACAAAAGTNNTACANNTTTTTAADTNNAGAGTNAAGNN
                  TAATATTTTAAAGACAGCCTCAGATGACAACAGTACTACAGATTTTTAAGT-------------
                  ----AATT--------GCTTCA----GCAAAA-------------CCAAATGCAGAGTGAAG--
                  TAAAAGTTCGAAGACATCTTCATGCGACAAAAGTGATACATGTTTTTAATTAAAGAGTAAAGCC
```

FIGURE 6

```
                          10        20        30        40        50
Contig
Murine CD86       MDPRC--------TMGLAILIFVTVLLISDAVSVETQAYFNGTAYLPCPFTKAQNI
Porcine CD86(i)   --PRCGRSRTSGSMGLSNILFGMVLLLSGAASLKSQAYFNETGELPCHFTNSQNL
Human CD86        -------------MGLSNILFVMAFLLSGAAPLKIQAYFNETADLPCQFANSQNQ
Porcine CD86      -------------MGLSNILFVMVLLLSGAASLKSQAYFNETGELPCHFTNSQNL

                  60        70        80        90        100       110
                  SLSELVVFWQDQQKLVLYEHYLGTEKLDSVNAKYLGRTSFDRNNWTLRLHNVQIK
                  SLDELVIFWQDQDNLVLYELYRGQEKPHNVNSKYMGRTSFDQATWTLRLHNVQIK
                  SLSELVVFWQDQENLVLNEVYLGKEKFDSVHSKYMGRTSFDSDSWTLRLHNLQIK
                  SLDELVIFWQDQDNLVLYELYRGQEKPHNVNSKYMGRTSFDQATWTLRLHNVQIK

                  120       130       140       150       160
                  DMGSYDCFIQKKPPTGSIILQQTLTELSVIANFSEPEIKLAQNVTGNSGINLTCT
                  DKGSYQCFIHHKGPHGLVPIHQMSSDLSVLANFSQPEINLLTNHTENSVINLTCS
                  DKGLYQCIIHHKKPTGMIRIHQMNSELSVLANFSQPEIVPISNITENVYINLTCS
                  DKGSYQCFIHHKGPHGLVPIHQMSSDLSLLANFSQPEINLLTNHTENSVINLTCS

                  170       180       190       200       210       220
                  SKQGHPKPKKMYFLIT--NSTNEYGDNMQISQDNVTELFSISNSLSLSFPDGVWH
                  STQGYPEPQRMYMLLNTKNSTTEHDADMKKSQNNITELYNVSIRVSLPIPPET-N
                  SIHGYPEPKKMSVLLRTKNSTIEYDGIMQKSQDNVTELYDVSISLSVSFPDVTSN
                  STQGYPEPQRMYMLLNTKNSTTEHDADMKKSQNNITELYNVSIRVSLPIPPET-N

                  230       240       250       260       270
                  MTVVCVLETESMKISSKPLNFTQEFPSP--------QTYW-KEITASVTVALLLVM
                  VSIVCVLQLEPSKTLLFSLPCNIDAKPPVQPPVPDHILWIAALLVTVVVVCGMVS
                  MTIFCI--LETDKTRLLSSPFSIELEDP-QPP-PDHIPWITAVLPTVII-CVMVF
                  VSIVCVLQLEPSKTLLFSLPCNIDAKPPVQPPVPDHILWIAALLVTVVVVCGMVS

                  280       290       300       310       320       330
                  LLIIVCHKKPNQPSRPSN--TASKLERDSNAD---RETINL----KELEPQIASA
                  FVTLRK-RKKKQPGPSNECGETIKMNRKASEQTKNRAEVH--ERSDDAQCDVNIL
                  CLILWKWKKKKRPRNSYKCG-TNTMEREESEQTKKREKIHIPERSDEAQRVFKSS
                  FVTLRK-RKKKQPGPSNECGETIKMNRKASEQTKNRAEVH--ERSDDAQCDVNIL

                  340       350
                  KPNAE
                  KTASDDNSTTDFXVDLEGGPGTSFC
                  KTSSCDKSDTCF
                  KTASDDNSTT--DFXLKSKL
```

09868605

FIGURE 7-1

```
      580       590       600       610       620       630       640       650
GTACAAGAACCGGACCATCTTTGATATCACTAATAACCTCTCCATTGTGATCCTGGCTCTGCGCCCATCTGACGAGGGCACA
CGAGTATAAGAACCGGACTTTATATGACAACACTACCTACTCTCTTATCATCCTGGGCCTGGTCCTTTCAGACCGGGGCACA
      520       530       540       550       560       570       580       590

      660       670       680       690       700       710       720       730
TACGAGTGTGTTGTTCTGAAGTATGAAAAAGACGCTTTCAAGCGGGAACACCTGGCTGAAGTGACGTTATCAGTCAAAGCTG
TACAGCTGTGTCGTTCAAAAGAAGGAAAGAGGAACGTATGAAGTTAAACACTTGGCTTTAGTAAAGTTGTCCATCAAAGCTG
      600       610       620       630       640       650       660       670

740       750       760       770       780       790       800       810       820
ACTTCCCTACACCTAGTATATCTGACTTTGAAATTCCAACTTCTAATATTAGAAGGATAATTTGCTCAACCTCTGGAGGTTT
ACTTCTCTACCCCCAACATAACTGAGTCTGGAAACCCATCTGCAGACACTAAAAGGATTACCTGCTTTGCTTCCGGGGGTTT
680       690       700       710       720       730       740       750       760

         830       840       850       860       870       880       890       900
TCCAGAGCCTCACCTCTCCTGGTTGGAAAATGGAGAAGAATTAAATGCCATCAACACAACAGTTTCCCAAGATCCTGAAACT
CCCAAAGCCTCGCTTCTCTTGGTTGGAAAATGGAAGAGAATTACCTGGCATCAATACGACAATTTCCCAGGATCCTGAATCT
         770       780       790       800       810       820       830       840

      910       920       930       940       950       960       970       980
GAGCTCTATGCTGTTAGCAGCAAACTGGATTTCAATATGACAACCAACCACAGCTTCATGTGTCTCATCAAGTATGGACATT
GAATTGTACACCATTAGTAGCCAACTAGATTTCAATACGACTCGCAACCACACCATTAAGTGTCTCATTAAATATGGAGATG
      850       860       870       880       890       900       910       920

     990       1000      1010      1020      1030      1040      1050      1060
TAAGAGTGAATCAGACCTTCAACTGGAATACAACCAAGCAAGAGCATTTTCCTGATAACCTGCTCCCATCCTGGCCATTAC
CTCACGTGTCAGAGGACTTCACCTGGGAAAAACCCCCAGAAGACCCTCCTGATAGCAAGAACACACTTGTGCTCTTTGGGGC
     930       940       950       960       970       980       990       1000

1070      1080      1090      1100      1110      1120      1130      1140
CTTAATCTCAGTAAATGGAATTTTTGTGATATGCTGCCTGACCTACTGCTTTGCCCCAAGATGCAGAGAGAGAAGGAGGAAT
AGGATTCGGCGCAGTAATAACAGTCGTCGTCATCGTTGTCATCATCAAATGCTTCTGTAAGCACAGAAGCTGTTTCAGAAGA
1010      1020      1030      1040      1050      1060      1070      1080
```

FIGURE 7-2

```
1150 1160 1170 1180 1190 1200 1210 1220 1230
GAGAGATTGAGAAGGGAAAGTGTACGCCCTGTATAACAGTGTCCGCAGAAGCAAGGGGCTGAAAAGATCTGAAGGTAGCCTC
AATGAGGCAAGCAGAGAAACAAACAACAGCCTTACCTTCGGGCCTGAAGAAGCATTAGCTGAACAGACCGTCTTCCTTTAGT
1090 1100 1110 1120 1130 1140 1150 1160 1170

1240 1250 1260 1270 1280 1290 1300 1310
CGTCATCTCTTCTGGGATACATGGATCGTGGGGATCATGAGGCATTCTTCCCTTAACAAATTTAAGCTGTTTTACCCACTAC
TCTTCTCTGTCCATGTGGGATACATGGTATTATGTGGCTCATGAGGTACAATCTTTCTTTCAGCACCGTGCTAGCTGATCTT
1180 1190 1200 1210 1220 1230 1240 1250

1320 1330 1340 1350 1360 1370 1380 1390
CTCACCTTCTTAAAAACCTCTTTCAGATTAAGCTGAACAGTTACAAGATGGCTGGCATCCCTCTCCTTTCTCCCCATATGCA
TCGGACAACTTGACACAAGATAGAGTTAACTGGGAAGAGAAAGCCTTGAATGAGGATTTCTTTCCATCAGGAAGCTACGGGC
1260 1270 1280 1290 1300 1310 1320 1330

1400 1410 1420 1430 1440 1450 1460 1470
ATTTGCTTAATGTAACCTCTTCTTTTGCCATGTTTCCATTCTGCCATCTTGAATTGTCTTGTCAGCCAATTCATTATCTATT
AAGTTTGCTGGGCCTTTGATTGCTTGATGACTGAAGTGGAAAGGCTGAGCCCACTGTGGGTGGTGCTAGCCCTGGGCAGGGG
1340 1350 1360 1370 1380 1390 1400 1410

1480 1490
AAACACTAATTTGAG
CAGGTGACCCTGGGTGGTATAAGAAAAAGAGCTGTCACTAAAAGGAGAGGTGCCTAGTCTTACTGCAACTTGATATGTCATG
1420 1430 1440 1450 1460 1470 1480 1490

TTTGGTTGGTGTCTGTGGGAGGCCTGCCCTTTTCTGAAGAGAAGTGGTGGAGAGTGGATGGGGTGGGGGCAGAGGAAAAGT
1500 1510 1520 1530 1540 1550 1560 1570 1580

GGGGGAGAGGGCCTGGGAGGAGAGGAGGGAGGGGGACGGGGTGGGGGTGGGAAAACTATGGTTGGGATGTAAAAACGGATA
1590 1600 1610 1620 1630 1640 1650 1660
```

FIGURE 8a

```
                    10        20        30        40        50        60
                     |         |         |         |         |         |
Contig      NNNNNNNNNNNNNNNNNNNNNNNNNNTGCCNNCTGNNNNNNNCTCGCCATGGTTCGTTTGCCTCTGCAG
Human CD40  GCCTCGCTCGGGCGCCCAGTGGTCCTGCCGCCTGGTCTCACCTCGCCATGGTTCGTCTGCCTCTGCAG
Bovine CD40 ------------------------------------------CTCGCCATGGTTCGTTTGCCACTGCAG
Mouse CD40  -------------------------TGCC--CTG------------CATGGTGTCTTTGCCTCGGCTG

              70        80        90       100       110       120       130
               |         |         |         |         |         |         |
Contig      TGCGTCCTCTGGGGCTGCTTGCTGACCGCBGTCCATCCAGAACCABCCACTGCDTGCAGAGAVAAACA
Human CD40  TGCGTCCTCTGGGGCTGCTTGCTGACCGCTGTCCATCCAGAACCACCCACTGCATGCAGAGAAAAACA
Bovine CD40 TGTCTCTTCTGGGGCTTCTTTCTGACCGCCGTCCACTCAGAACCAGCCACTGCTTGTGGAGAGAAGCA
Mouse CD40  TGCGCGCTATGGGGCTGCTTGTTGACAGCGGTCCATCTAGGGCAGTGTGTTACGTGCAGTGACAAACA

             140       150       160       170       180       190       200
               |         |         |         |         |         |         |
Contig      GTACCTAVTVAACAGTCAGTGCTGTGATTTGTGCCAGCCAGGACAGAAACTGGTGAGCGACTGCACAG
Human CD40  GTACCTAATAAACAGTCAGTGCTGTTCTTTGTGCCAGCCAGGACAGAAACTGGTGAGTGACTGCACAG
Bovine CD40 ATACCCAGTGAACAGTCTTTGCTGTGATTTGTGCCCGCCGGGACAGAAACTGGTGAACGACTGCACAG
Mouse CD40  GTACCTCCACGATGGCCAGTGCTGTGATTTGTGCCAGCCAGGAAGCCGACTGACAAGCCACTGCACAG

             210       220       230       240       250       260       270
               |         |         |         |         |         |         |
Contig      AGBTCAVBAAAACVGAATGCCABCCHTGCGGTDAAGGCGAATTCTTAGCCACCTGGAACAGAGAGAHA
Human CD40  AGTTCACTGAAACGGAATGCCTTCCTTGCGGTGAAAGCGAATTCCTAGACACCTGGAACAGAGAGACA
Bovine CD40 AGGTCAGCAAAACAGAATGCCAGTCCTGCGGTAAAGGCGAATTCTTGTCCACCTGGAACAGAGAGAAA
Mouse CD40  CTCTTGAGAAGACCCAATGCCACCCATGTGACTCAGGCGAATTCTCAGCCCAGTGGAACAGGGAGATT

             280       290       300       310       320       330       340
               |         |         |         |         |         |         |
Contig      CACTGTCACCAGCACAGATACTGCGACCCCAACCTAGGGCTTCGGGTCCAGAAGGAGGGCACCTCAGA
Human CD40  CACTGCCACCAGCACAAATACTGCGACCCCAACCTAGGGCTTCGGGTCCAGCAGAAGGGCACCTCAGA
Bovine CD40 TACTGTCACGAGCACAGATACTGCAACCCCAACCTAGGGCTCCGGATCCAGAGCGAGGGTACCTTGAA
Mouse CD40  CGCTGTCACCAGCACAGACACTGTGAACCCAATCAAGGGCTTCGGGTTAAGAAGGAGGGCACCGCAGA

             350       360       370       380       390       400
               |         |         |         |         |         |
Contig      AACAGACACCATCTGTACCTGTGAVGAAGGCCAACACTGTACCAGTVAGGCCTGCGAGAGHTGTGCBC
Human CD40  AACAGACACCATCTGCACCTGTGAAGAAGGCTGGCACTGTACGAGTGAGGCCTGTGAGAGCTGTGTCC
Bovine CD40 TACAGACACCATTTGTGTATGTGTCGAAGGCCAACACTGTACCAGTCACACCTGCGAAAGTTGCACGC
Mouse CD40  ATCAGACACTGTCTGTACCTGTAAGGAAGGACAACACTGCACCAGCAAGGATTGCGAGGCATGTGCTC

             410       420       430       440       450       460       470
               |         |         |         |         |         |         |
Contig      HGCACAGCTCVTGTHTCCCTGGCTTTGGGGTCAAGCAGATBGCTACAGGGVTTTCTGATACCGTCTGT
Human CD40  TGCACCGCTCATGCTCGCCCGGCTTTGGGGTCAAGCAGATTGCTACAGGGGTTTCTGATACCATCTGC
Bovine CD40 CCCACAGCTTGTGTCTCCCTGGCTTCGGGGTCAAGCAGATCGCTACAGGGCTTTTGGATACCGTCTGT
Mouse CD40  AGCACACGCCCTGTATCCCTGGCTTTGGAGTTATGGAGATGGCCACTGAGACCACTGATACCGTCTGT

             480       490       500       510       520       530       540
               |         |         |         |         |         |         |
Contig      GADCCCTGCCCAGTCGGCTTCTTCTCCAATGTGTCATCTGCTTTCGAAAAGTGTCACCCTTGGACAAG
Human CD40  GAGCCCTGCCCAGTCGGCTTCTTCTCCAATGTGTCATCTGCTTTCGAAAAATGTCACCCTTGGACAAG
Bovine CD40 GAACCCTGCCCGCTCGGCTTCTTCTCCAACGTGTCATCTGCTTTTGAAAAGTGTCACCGTTGGACAAG
Mouse CD40  CATCCCTGCCCAGTCGGCTTCTTCTCCAATCAGTCATCACTTTTCGAAAAGTGTTATCCCTGGACAAG

             550       560       570       580       590       600       610
               |         |         |         |         |         |         |
Contig      CTGTGAGAVHAAAGACCTGGTGGTVCAACAGGHAGGVACGAACAAGACTGATGTTGTCTGTGGTTTCC
Human CD40  CTGTGAGACCAAAGACCTGGTTGTGCAACAGGCAGGCACAAACAAGACTGATGTTGTCTGTGGTCCCC
Bovine CD40 CTGCGAGAGAAAAGGCCTGGTGGAACAACACGTGGGGACGAACAAGACAGATGTTGTCTGCGGTTTCC
Mouse CD40  CTGTGAGGATAAGAACTTGGAGGTCCTACAGAAAGGAACGAGTCAGACTAATGTCATCTGTGGTTTAA

             620       630       640       650       660       670       680
```

FIGURE 8a - 1

```
Contig          AGDVTCGGATGAGAGCCCTGGTGGTGATCCCCGTCATGATGGGVATCCTGTTTGCCATCCTCTTGGTG
Human CD40      AGGATCGGCTGAGAGCCCTGGTGGTGATCCCCATCATCTTCGGGATCCTGTTTGCCATCCTCTTGGTG
Bovine CD40     AGAGTCGGATGAGGACCCTGGTGGTGATCCCCGTCACGATGGGAGTCTTGTTTGCTGTCCTGTTGGTA
Mouse CD40      AGTCCCGGATGCGAGCCCTGCTGGTCATTCCTGTCGTGATGGGCATCCTCATCACCATTTTCGGGGTG

                       690       700       710       720       730       740
Contig          TTTGTCTDTATCAAAAAGGTGGCCAAGAAGCCAACVGATAANNNGGCCCTVCACCCTANGGCTNNANG
Human CD40      CTGGTCTTTATCAAAAAGGTGGCCAAGAAGCCAACCAATAA---GGCCCCCCACCCCA---------A
Bovine CD40     TCTGCCTGTATCAGGAACATAACCAAGAAGC-GGCAGCTAA---GGCCCTGCACCCTATGGCTGAAAG
Mouse CD40      TTTCTCTATATCAAAAAGGTGGTCAAGAAACCAAAGGATAATGAGATGTTACCCCCTGCGGCTCGACG

                750       760       770       780       790       800       810
Contig          GCAGGATCCCCAGGAGATGANTNNTCCNGAVGATTTTCCCGGCCCCAACACCGCTGCTCCAGTGCAGG
Human CD40      GCAGGAACCCCAGGAGATCAATTTTCCCGACGATCTTCCTGGCTCCAACACTGCTGCTCCAGTGCAGG
Bovine CD40     GCAGGATCCCGTGGAGACGATTGATCCGGAGGATTTTCCCGGCCCCCAC-CCGCCTCTCCGGTGCAAG
Mouse CD40      GCAAGATCCCCAGGAGATG---------GAAGATTATCCCGGTCATAACACCGCTGCTCCAGTGCAGG

                  820       830       840       850       860       870       880
Contig          AGACHTTACACGGGTGTCAGCCGGTCACCCAGGAGGATGGCAAAGAGAGTCGCATCTCAGTGCAGGAG
Human CD40      AGACTTTACATGGATGCCAACCGGTCACCCAGGAGGATGGCAAAGAGAGTCGCATCTCAGTGCAGGAG
Bovine CD40     AGACCTTATGCTGGTGTCAGCCGGTCGCCCAGGAGGACGGCAAAG
Mouse CD40      AGACACTGCACGGGTGTCAGCCTGTCACACAGGAGGATGGTAAAGAGAGTCGCATCTCAGTGCAGGAG

                   890       900       910       920       930       940       950
Contig          CGGCAGGTGACAGACAGCATAGCCTTGAGGCCCCTGGTCTGMACCCTGGAACYGCTTYRGRRGYGATG
Human CD40      -----------AGACAG---------TGAGGC---------TGCACCC----ACC----CAGGAGTG-TG
Mouse CD40      CGGCAGGTGACAGACAGCATAGCCTTGAGGCCCCTGGTCTGAACCCTGGAACTGCTTTGGAGGCGATG

                   960       970       980       990      1000      1010      1020
Contig# 1       GCYRCTTGCTGACCTTTGAAGTTTGAGRTGRGCCAARACAGAGCCCAGTGCAGYTRRCYCTCATGCCT
Human CD40      GCCAC----------------------GTGGGC--AAACAG--------GCAGTTGGCC---------
Mouse CD40      GCTGCTTGCTGACCTTTGAAGTTTGAGATGAGCCAAGACAGAGCCCAGTGCAGCTAACTCTCATGCCT
```

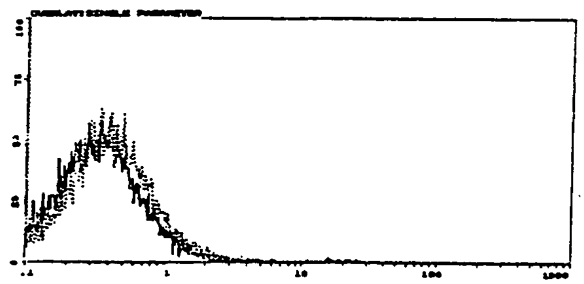
FIGURE 8b

```
                           10        20        30        40        50        60
Contig
bovine CD40 protein   MVRLPLQCLFWGFFLTAVHSEPATACGEKQYPVNSLCCDLCPPGQKLVNDCTEVSKTECQ
human CD40 protein    MVRLPLQCVLWGCLLTAVHPEPPTACREKQYLINSQCCSLCQPGQKLVSDCTEFTETECL
murine CD40 protein   MVSLPRLCALWGCLLTAVHLGQCVTCSDKQYLHDGQCCDLCQPGSRLTSHCTALEKTQCH

                           70        80        90       100       110       120
Contig
bovine CD40 protein   SCGKGEFLSTWNREKYCHEHRYCNPNLGLRIQSEGTLNTDTICVCVEGQHCTSHTCESCT
human CD40 protein    PCGESEFLDTWNRETHCHQHKYCDPNLGLRVQQKGTSETDTICTCEEGWHCTSEACESCV
murine CD40 protein   PCDSGEFSAQWNREIRCHQHRHCEPNQGLRVKKEGTAESDTVCTCKEGQHCTSKDCEACA

                          130       140       150       160       170       180
Contig
bovine CD40 protein   PHSLCLPGFGVKQIATGLLDTVCEPCPLGFFSNVSSAFEKCHRWTSCERKGLVEQHVGTN
human CD40 protein    LHRSCSPGFGVKQIATGVSDTICEPCPVGFFSNVSSAFEKCHPWTSCETKDLVVQQAGTN
murine CD40 protein   QHTPCIPGFGVMEMATETTDTVCHPCPVGFFSNQSSLFEKCYPWTSCEDKNLEVLQKGTS

                          190       200       210       220       230       240
Contig
bovine CD40 protein   KTDVVCGFQSRMRTLVVIPVTMGVLFAVLLVSACIRNITKK------------RQLRPCTL
human CD40 protein    KTDVVCGPQDRLRALVVIPIIFGILFAILLVLVFIKKVAKKPTNKAPHP----KQEPQEI
murine CD40 protein   QTNVICGLKSRMRALLVIPVVMGILITIFGVFLYIKKVVKKPKDNEMLPPAARRQDPQEM

                          250       260       270       280
Contig
bovine CD40 protein   WLKGRIPWRRL---IRRIFPA--PTRLSGARDLMLVSAGRPGGRQ
human CD40 protein    NFPDDLPGSNTAAPVQETLHGCQPVTQEDGKESRISVQERQ
murine CD40 protein   ---EDYPGHNTAAPVQETLHGCQPVTQEDGKESRISVQERQVTDSIALRPLV
```

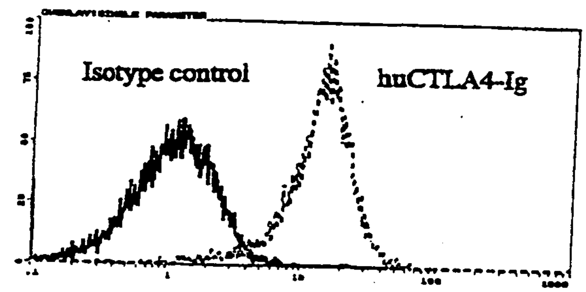
Figure 9

A

Non-transfected control cells

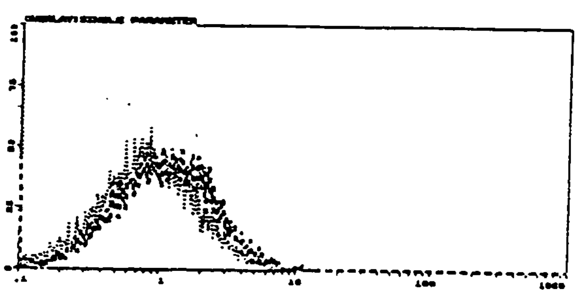


Transfected cells



B

Non-transfected control cells



Transfected cells

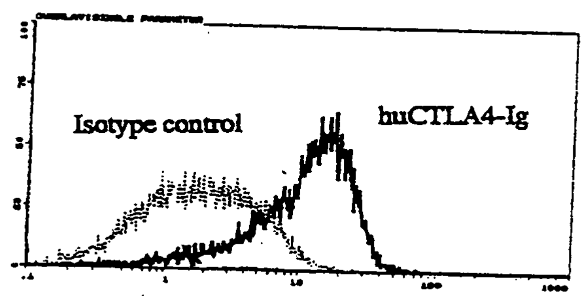


FIGURE 10

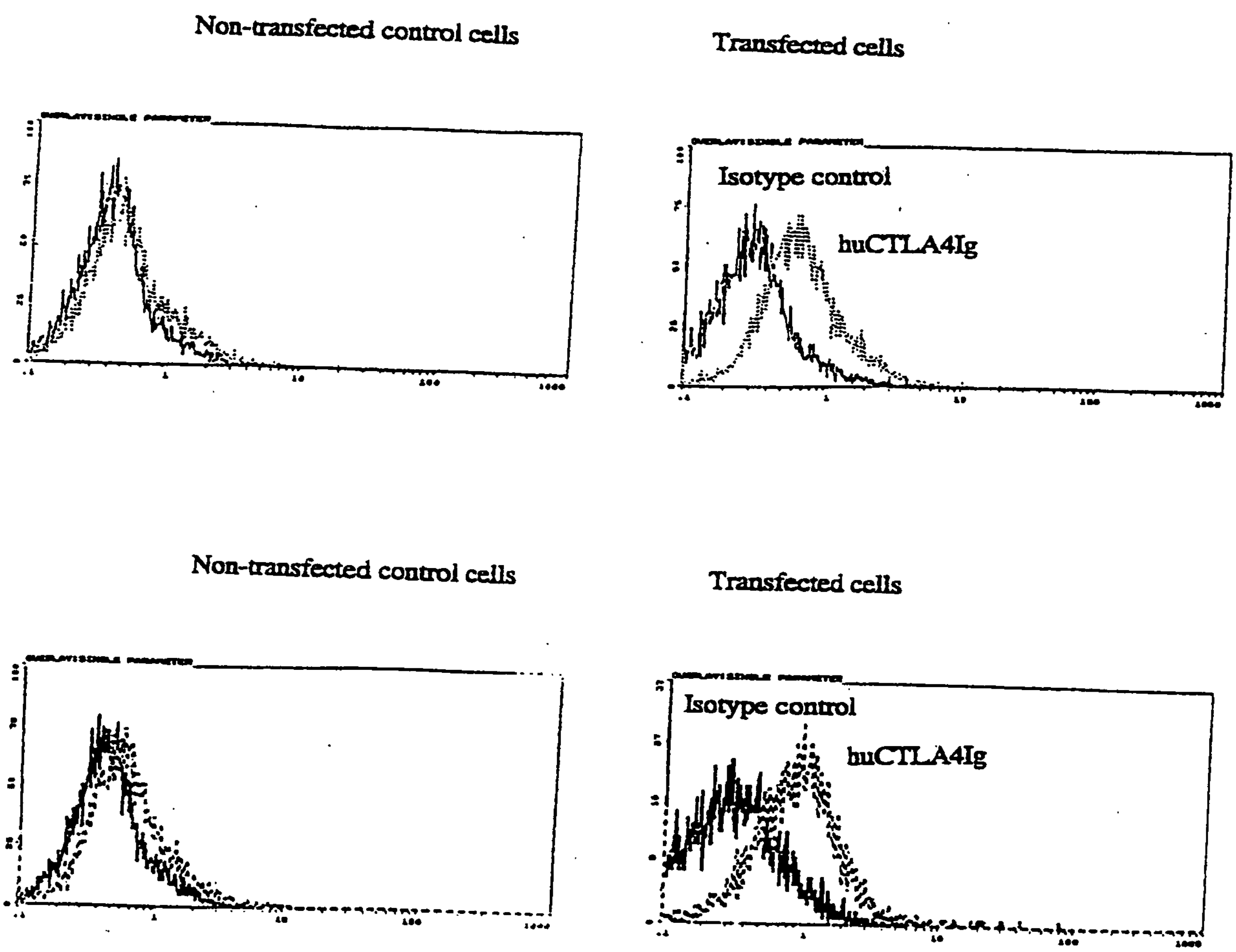
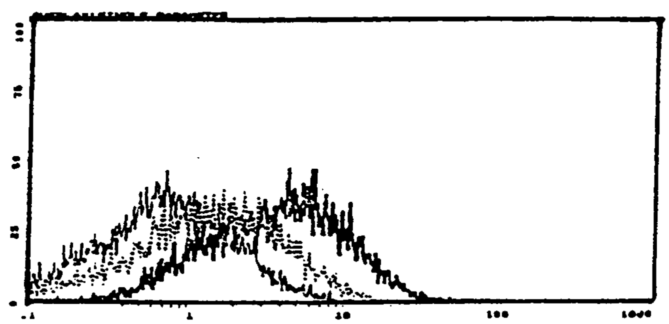
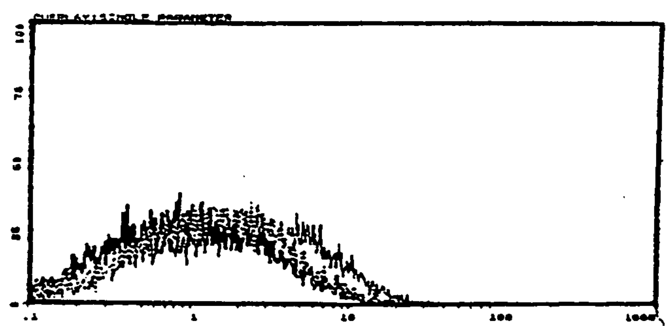

Non-transfected control cells
Transfected cells
Isotype control
huCTLA4Ig
Non-transfected control cells
Transfected cells
Isotype control
huCTLA4Ig

FIGURE 11

A



B



09868605

FIGURE 12

1 MGLSNILFVM VLLLSGAASL KSQAYFNETG ELPCHFTNSQ

41 NLSLDELVIF WQDQDNLVLY ELYRGQEKPH NVNSKYMGRT

81 SFDQATWTLR LHNVQIKDKG SYQCFIHHKG PHGLVPIHQM

121 SSDLSLLANF SQPEINLLTN HTENSVINLT CSSTQGYPEP

161 QRMYMLLNTK NSTTEHDADM KKSQNNITEL YNVSIRVSLP

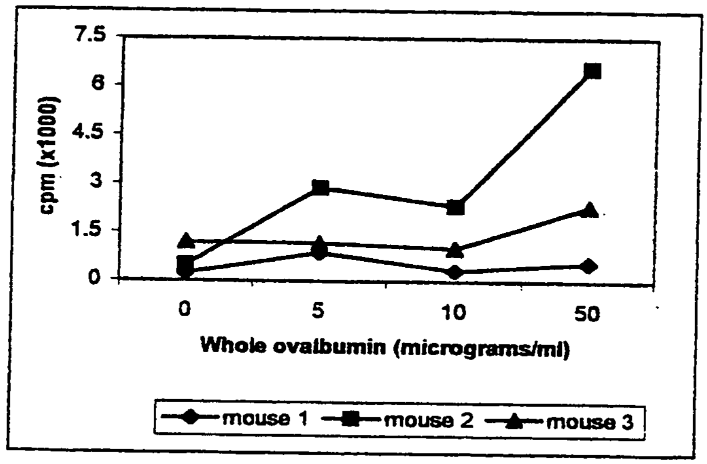
201 IPPETNVSIV CVLQLEPSKT LLFSLPCNID AKPPVQPPVP

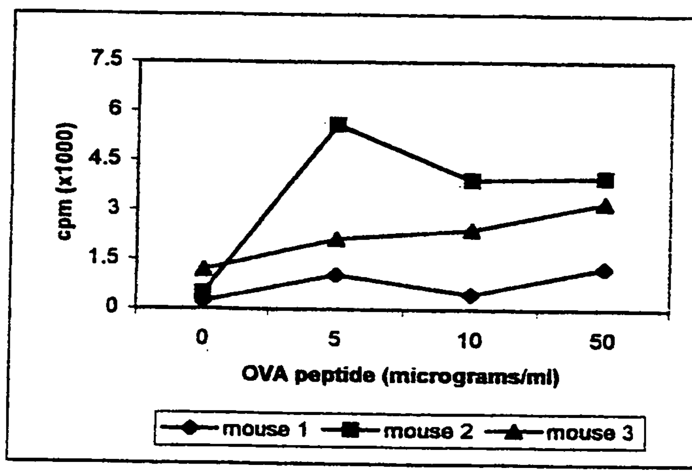
241 DHILWIAALL VTVVVVCGMV SFVTLRKRKK KQPGPSNECG

281 ETIKMNRKAS EQTKNRAEVH ERSDDAQCDV NILKTASDDN

321 STTDF•LKSK L

FIGURE 13


7.5
6
4.5
3
1.5
0
cpm (x1000)
0
5
10
50
Whole ovalbumin (micrograms/ml)
mouse 1
mouse 2
mouse 3


7.5
6
4.5
3
1.5
0
cpm (x1000)
0
5
10
50
OVA peptide (micrograms/ml)
mouse 1
mouse 2
mouse 3

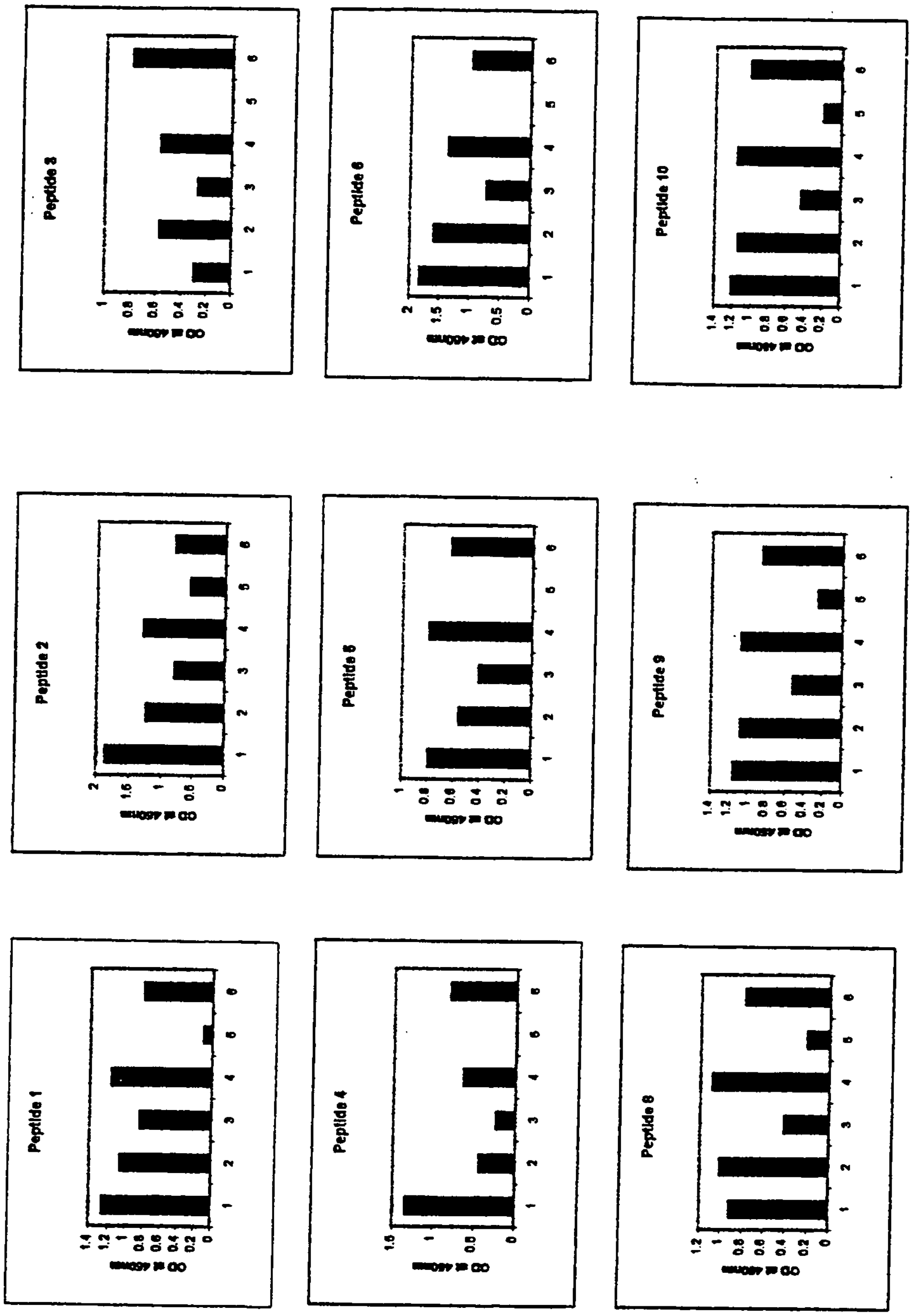
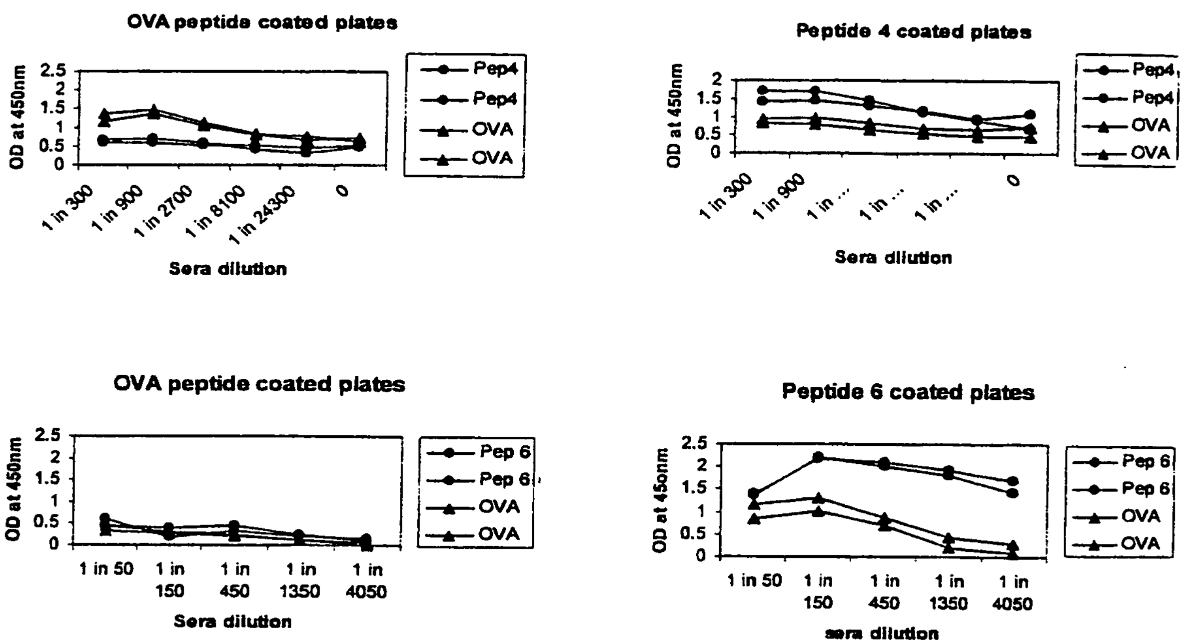


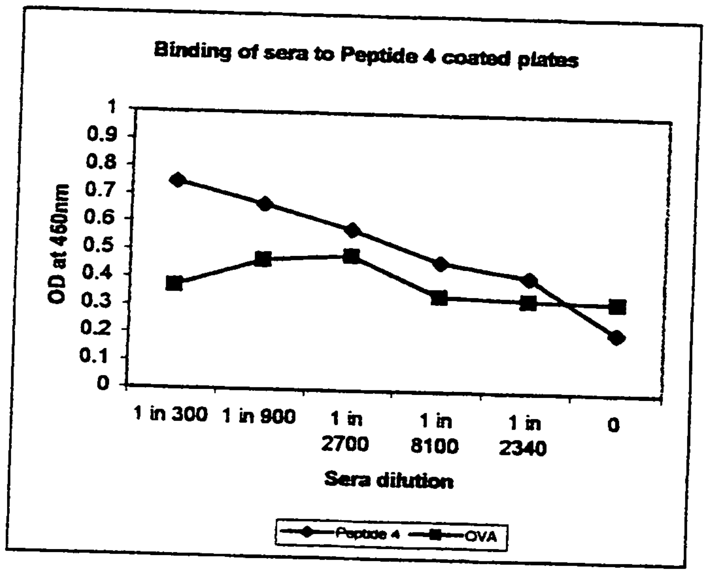
Figure 14a

FIGURE 14b


OVA peptide coated plates
OD at 450nm
Sera dilution
1 in 300
1 in 900
1 in 2700
1 in 8100
1 in 24300
0
Pep4
Pep4
OVA
OVA
Peptide 4 coated plates
OD at 450nm
Sera dilution
Pep4
Pep4
OVA
OVA
OVA peptide coated plates
OD at 450nm
Sera dilution
1 in 50
1 in 150
1 in 450
1 in 1350
1 in 4050
Pep 6
Pep 6
OVA
OVA
Peptide 6 coated plates
OD at 450nm
sera dilution
Pep 6
Pep 6
OVA
OVA

09868605

Figure 15a



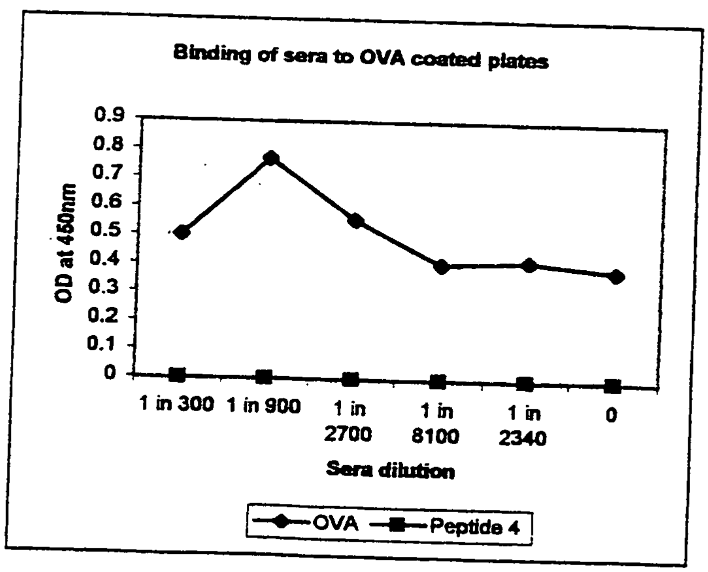
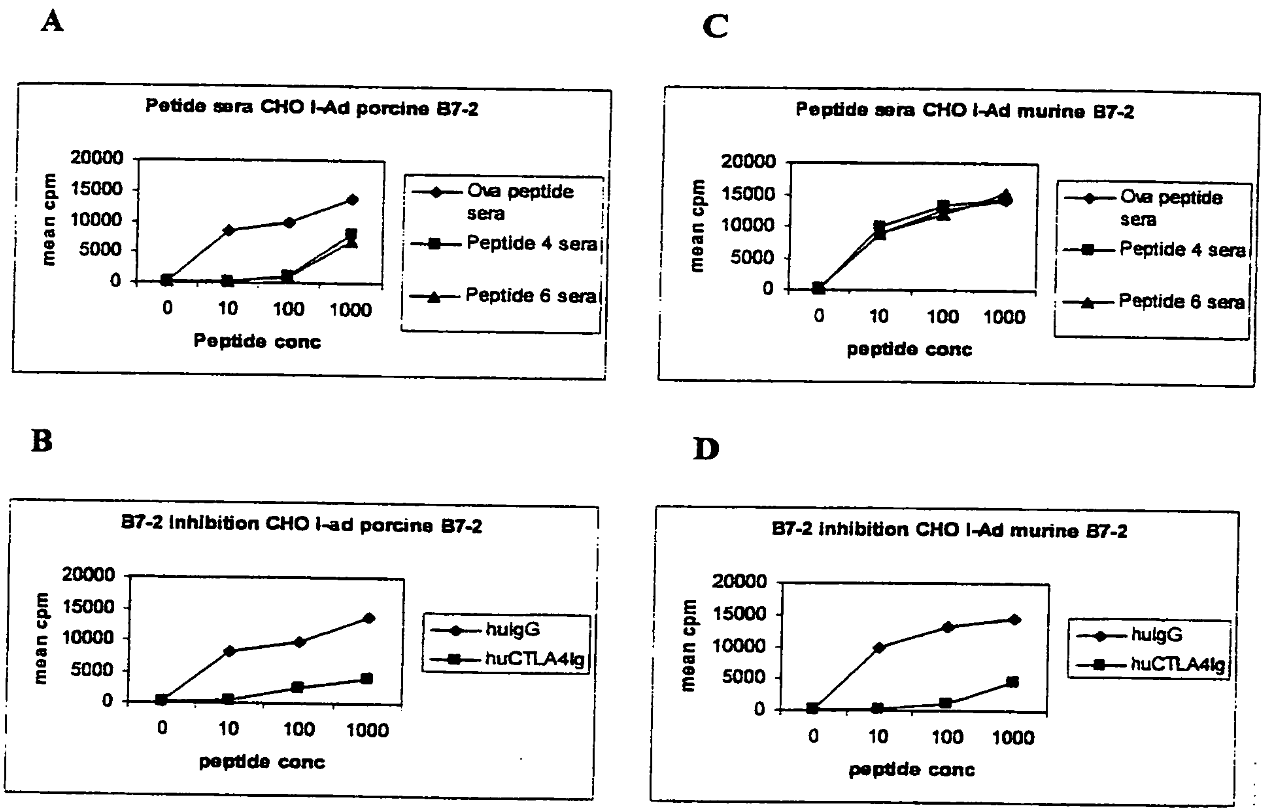


Figure 15b



Porcine B7-2 Murine B7-2

Figure 16

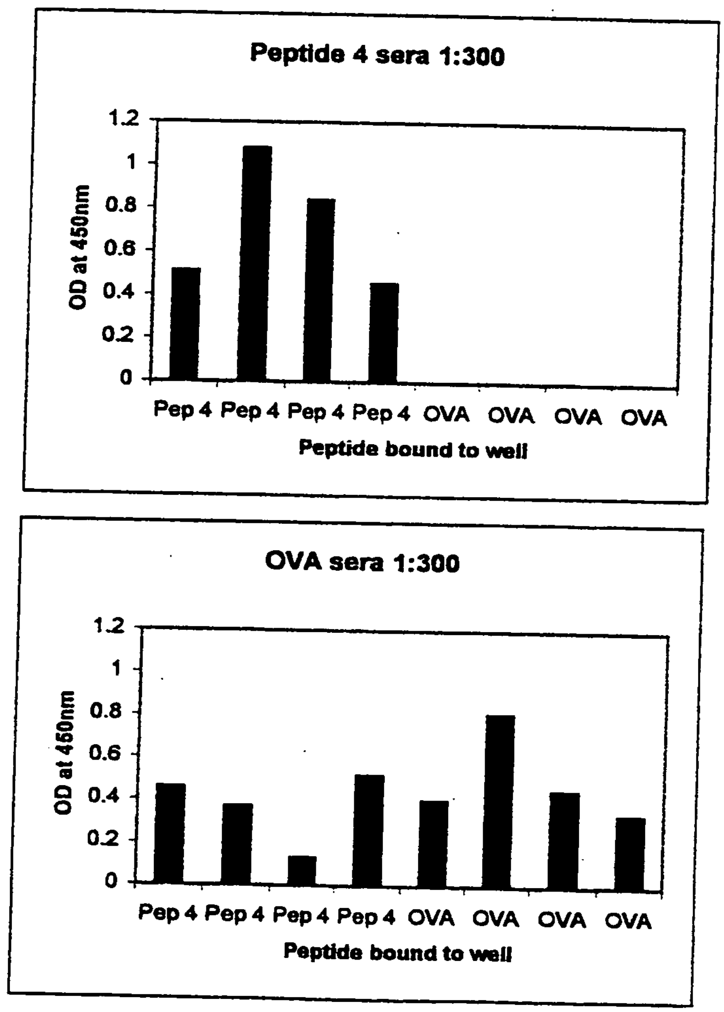

Peptide 4 sera 1:300
OD at 450nm
1.2
1
0.8
0.6
0.4
0.2
0
Pep 4 Pep 4 Pep 4 Pep 4 OVA OVA OVA OVA
Peptide bound to well
OVA sera 1:300
OD at 450nm
1.2
1
0.8
0.6
0.4
0.2
0
Pep 4 Pep 4 Pep 4 Pep 4 OVA OVA OVA OVA
Peptide bound to well

Figure 17a

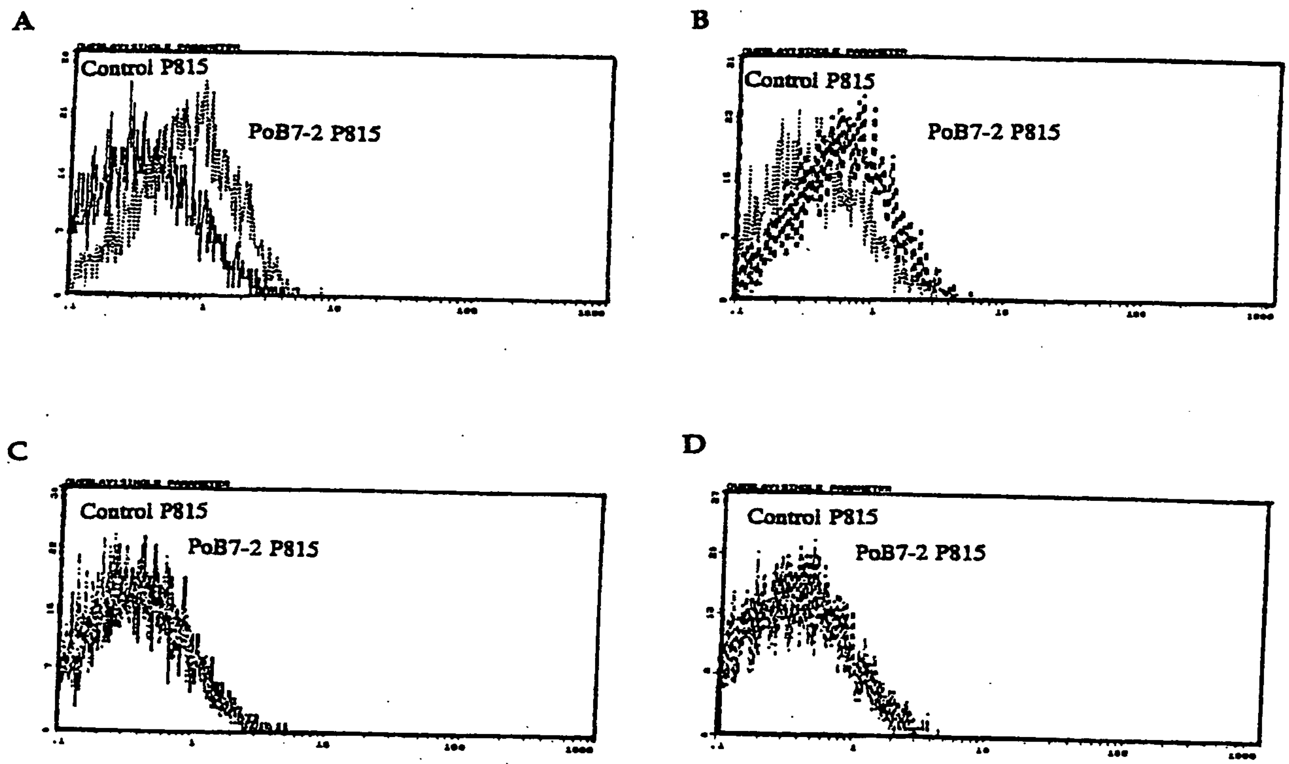
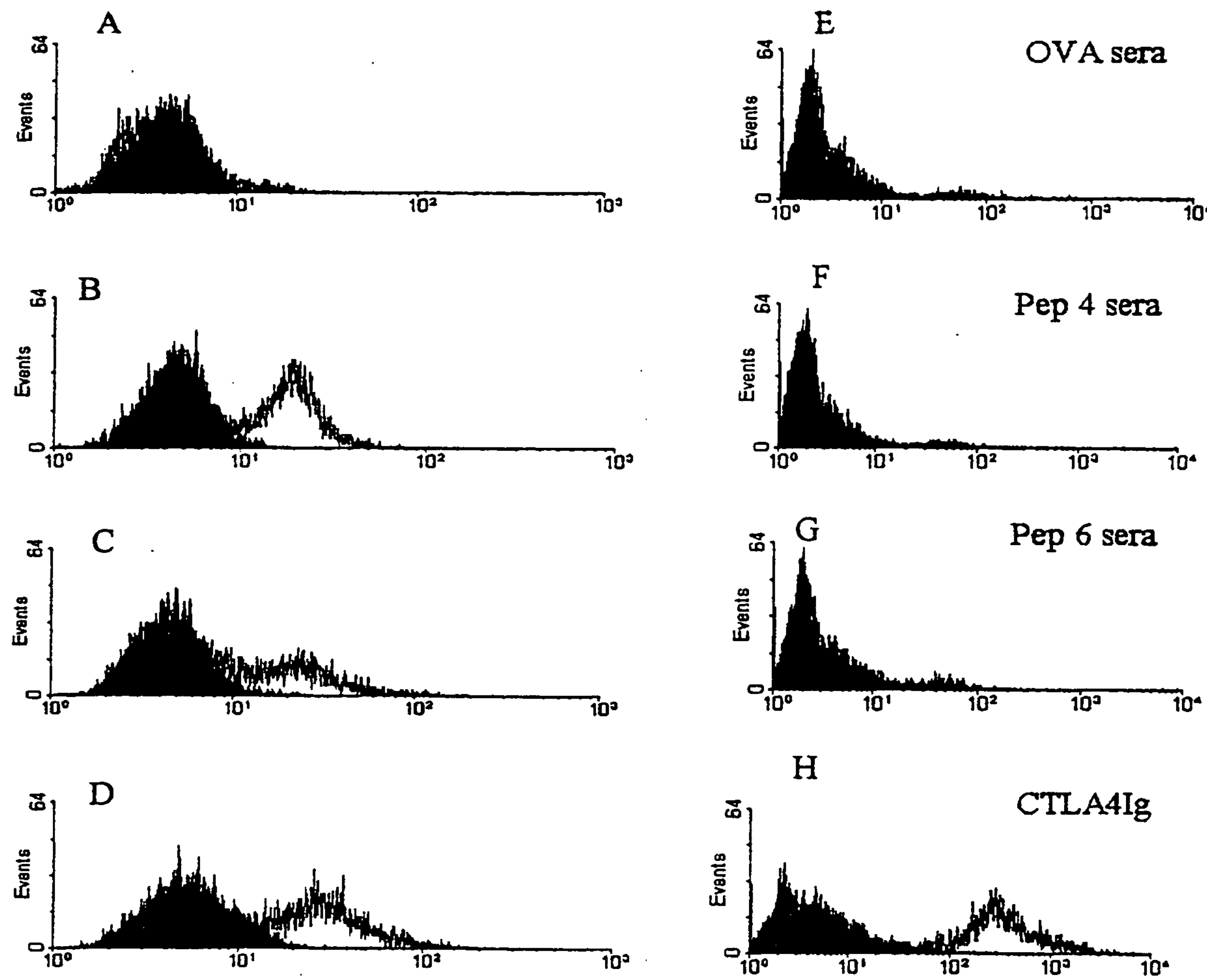

A
Control P815
PoB7-2 P815
B
Control P815
PoB7-2 P815
C
Control P815
PoB7-2 P815
D
Control P815
PoB7-2 P815

Figure 17b



Porcine CD86

Murine CD86

Figure 18

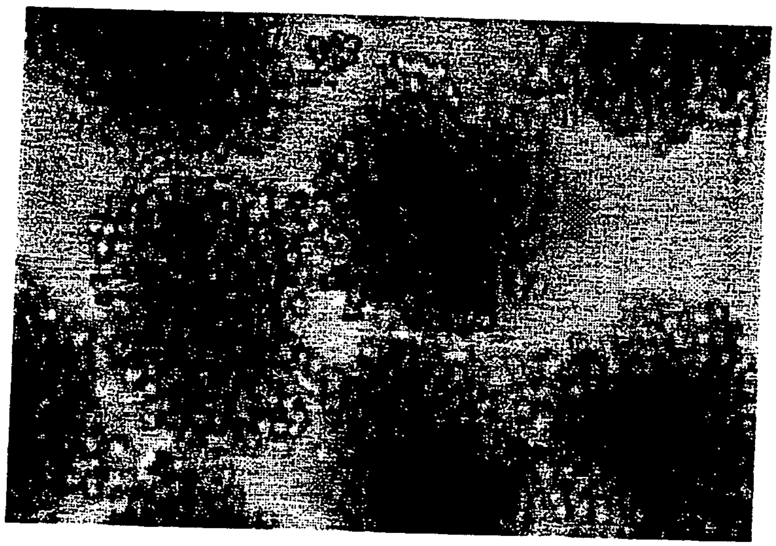


FIGURE 19

Day 1: Immunisation of C57BL-6 mice with whole ovalbumin (50 micrograms) in Complete freunds adjuvant (CFA)

↓

Day 14: First immunisation with chimeric peptide (100 micrograms) i.v.

Day 21: Second immunisation with chimeric peptide (100 micrograms) i.v.

Day 28: Third immunisation with chimeric peptide (100 micrograms) i.v.

↓

Day 32: Mice rendered diabetic by injection of streptozotocin i.p.

↓

Day 36 : Transplantation of 1000 porcine pancreatic islets under the kidney capsule of diabetic mice

↓

Day 37 onwards : Survival of islets assessed by measuring blood glucose levels

Figure 20

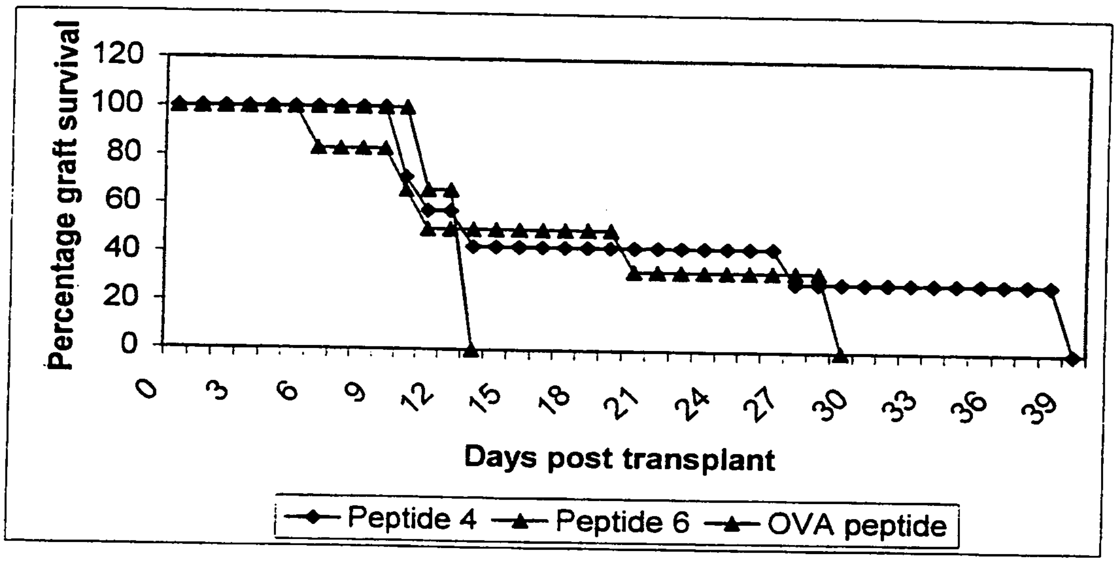

Percentage graft survival
120
100
80
60
40
20
0
0
3
6
9
12
15
18
21
24
27
30
33
36
39
Days post transplant
Peptide 4
Peptide 6
OVA peptide

FIGURE 21

poCD40protein(top), human CD40 protein(bottom)

```
         10        20        30        40        50        60        70        80
MVRLPLQCLLWGCFLTAVHPEPPTSCKENQYPTNSRCCNLCPPGQKLVNHCTEVTETECLPCSSSEFLATWNREKHCHQHKY
MVRLPLQCVLWGCLLTAVHPEPPTACREKQYLINSQCCSLCQPGQKLVSDCTEFTETECLPCGESEFLDTWNRETHCHQHKY
         10        20        30        40        50        60        70        80

         90       100       110       120       130       140       150       160
CDPNLGLQVQREGTSKTDTTCVCSEGHHCTNSACESCTLHSLCFPGLGVKQMATEVSDTICEPCPVGFFSNVSSASEKCQPW
CDPNLGLRVQQKGTSETDTICTCEEGWHCTSEACESCVLHRSCSPGFGVKQIATGVSDTICEPCPVGFFSNVSSAFEKCHPW
         90       100       110       120       130       140       150       160

        170       180       190       200       210       220       230       240
TSCESKGLVEQRAGTNKTDVVCGFQSRMRALVVIPITLGILFAVLLVFLCIRKVTKEQETKALHPKTERQDPVETIDLEDFP
TSCETKDLVVQQAGTNKTDVVCGPQDRLRALVVIPIIFGILFAILLVLVFIKKVAKKPTNKAPHPKQEPQEINFPDDLPGSN
        170       180       190       200       210       220       230       240

       250       260       270
DSTAPVQETLHWCQPVTQEDGKESRISVQERQ
TA-APVQETLHGCQPVTQEDGKESRISVQERQ
        250       260       270
```

Figure 22

1 MVRLPLQCLL WGCFLTAVHP EPPTSCKENQ YPTNSRCCNL

41 CPPGQKLVNH CTEVTETECL PCSSSEFLAT WNREKHCHQH

81 KYCDPNLGLQ VQREGTSKTD TTCVCSEGHH CTNSACESCT

121 LHSLCFPGLG VKQMATEVSD TICEPCPVGF FSNVSSASEK

161 CQPWTSCESK GLVEQRAGTN KTDVVCGFQS RMRALVVIPI

201 TLGILFAVLL VFLCIRKVTK EQETKALHPK TERQDPVETI

241 DLEDFPDSTA PVQETLHWCQ PVTQEDGKES RISVQERQ

FIGURE 23

pig VCAM peptide copy(top), human VCAM peptide copy(bottom)

```
-20      -10                 10        20        30        40        50        60|
          |         |         |         |         |         |
IVVIFGASNILWMVFAVSQNVKVEIFPEDKMIAQIGDSASLTCSAPDCESSLSFSWRTQIDSPLNGKVKTNGTRSTLVMNPV
MVVILGASNILWIMFAASQAFKIETTPESRYLAQIGDSVSLTCSTTGCESP-FFSWRTQIDSPLNGKVTNEGTTSTLTMNPV
          |         |         |         |         |          |         |         |
          10        20        30        40        50         60        70        80

      70        80        90        100       110       120       130       140
       |         |         |         |         |         |         |         |
SFENEHSYLCTVSCGNLKGERGIQVEIYSFPKDPEIHWSSLPEVGKPVTVRCLVPDVYPVEKLEIELLKDNHSMVSQNFLEL
SFGNEHSYLCTATCESRKLEKGIQVEIYSFPKDPEIHLSGPLEAGKPITVKCSVADVYPFDRLEIDLLKGDHLMKSQEFLED
        |         |         |         |         |         |         |         |
        90        100       110       120       130       140       150       160

    150       160       170       180       190          200       210       220
     |         |         |         |         |            |         |         |
IDIKSKETKSLEFTFTPTEEDIGKAIVCQATLIIDGQPSVKTTPEKM---QVYISPKDPVISVNPSTSLQEGDSMMMTCTSE
ADRKSLETKSLEVTFTPVIEDIGKVLVCRAKLHIDEMDSVPTVRQAVKELQVYISPKNTVISVNPSTKLQEGGSVTMTCSSE
      |         |         |         |         |         |         |         |
      170       180       190       200       210       220       230       240

    230       240       250       260       270       280
     |         |         |         |         |         |
GLPAPQISWSKKLDNGDQQLLSGNATLTLIAMRMEDSGIYVCEGVNPVGTNRKEVELTVQ----------------------
GLPAPEIFWSKKLDNGNLQHLSGNATLTLIAMRMEDSGIYVCEGVNLIGKNRKEVELIVQEKPFTVEISPGPRIAAQIGDSV
     |         |         |         |         |         |         |         |
     250       260       270       280       290       300       310       320

----------------------------------------------------------------------------------
MLTCSVMGCESPSFSWRTQIDSPLSGKVRSEGTNSTLTLSPVSFENEHSYLCTVTCGHKKLEKGIQGELYSFPRDPEIEMSG
  |         |         |         |         |         |         |         |
  330       340       350       360       370       380       390       400

----------------------------------------------------------------------------------
GLVNGSSCTVSCKVPSVYPLDRLEIELLKGETILENIEFLEDTDMKSLENKSLEMTFIPTIEDTGKALVCQAKLHIDDMEFE
|         |         |         |         |         |         |         |         |
410       420       430       440       450       460       470       480       490

                     290       300       310       320       330       340       350
                      |         |         |         |         |         |         |
-------------VAPRDTTISVNPSSTLEEGSSVNMTCSSDGFPAPKILWSKKLRDGNLEPLSENTTLTLTSTKMEDSGIY
```

09868605

FIGURE 23-1

```
          360       370       380       390       400       410       420       430
VCEGINQAGINRKEVELIIQAAPKDLQLTAFPSESVKEGDTVIISCTCGNVPPTLIILKKKAETGDTVLKSTDGAYTIHRAR
 ********  *********  ***  ************************* * **************** ****** * *
LCEGINQAGRSRKEVELIIQVTPKDIKLTAFPSESVKEGDTVIISCTCGNVPETWIILKKKAETGDTVLKSIDGAYTIRKAQ
         580       590       600       610       620       630       640       650

       440       450       460       470       480       490       500       510
LADAGVYECESKNEIGLQLRSITLDVKGRESNKDYFSSELLVLYCASSLIIPAIGVIIYFARKANMRGSYSLVDAQKSKV
* ***********  * **** **** *** ****** ****** ********** ********** ****** ******
LKDAGVYECESKNKVGSQLRSLTLDVQGRENNKDYFSPELLVLYFASSLIIPAIGMIIYFARKANMKGSYSLVEAQKSKV
      660       670       680       690       700       710       720       730
```

0986860520002-1 SUBSTITUTE SHEET (RULE 26)

FIGURE 24

↓ (signal sequence)

IVVIFGASNI LWMVFAVSQN VKVEIFPEDK MIAQIGDSAS
LTCSAPDCES SLSFSWRTQI DSPLNGKVKT NGTRSTLVMN
PVSFENEHSY LCTVSCGNLK GERGIQVEIY SFPKDPEIHW
SSLPEVGKPV TVRCLVPDVY PVEKLEIELL KDNHSMVSQN
FLELIDIKSK ETKSLEFTFT PTEEDIGKAI VCQATLIIDG
QPSVKTTPEK MQVYISPKDP VISVNPSTSL QEGDSMMMTC
TSEGLPAPQI SWSKKLDNGD QQLLSGNATL TLIAMRMEDS
GIYVCEGVNP VGTNRKEVEL TVQVAPRDTT ISVNPSSTLE
EGSSVNMTCS SDGFPAPKIL WSKKLRDGNL EPLSENTTLT
LTSTKMEDSG IYVCEGINQA GINRKEVELI IQAAPKDLQL
TAFPSESVKE GDTVIISCTC GNVPPTLIIL KKKAETGDTV
LKSTDGAYTI HRARLADAGV YECESKNEIG LQLRSITLDV
KGRESNKDYF SSELLVLYCA SSLIIPAIGV IIYFARKANM
RGSYSLVDAQ KSKV•

FIGURE 25

translated po B7-2 Maher(top), human B7-2 translated(bottom)

```
         10        20        30        40        50        60        70        80
         |         |         |         |         |         |         |         |
MGLSNILFVMVLLLSGAASLKSQAYFNETGELPCHFTNSQNLSLDELVIFWQDQDNLVLYELYRGQEKPHNVNSKYMGRTSF
••••••••••  •••••• •• •••••••  ••• • •••• •• ••• ••••• •••• • • • ••   • •••••••••
MGLSNILFVMAFLLSGAAPLKIQAYFNETADLPCQFANSQNQSLSELVVFWQDQENLVLNEVYLGKEKFDSVHSKYMGRTSF
         |         |         |         |         |         |         |         |
         10        20        30        40        50        60        70        80

       90       100       110       120       130       140       150       160
       |         |         |         |         |         |         |         |
DQATWTLRLHNVQIKDKGSYQCFIHHKGPHGLVPIHQMSSDLSLLANFSQPEINLLTNHTENSVINLTCSSTQGYPEPQRMY
•   ••••••• •••••• ••• •••• • •   •••• • •• •••••••••    • •••  •••••••  •••••  • 
DSDSWTLRLHNLQIKDKGLYQCIIHHKKPTGMIRIHQMNSELSVLANFSQPEIVPISNITENVYINLTCSSIHGYPEPKKMS
       |         |         |         |         |         |         |         |
       90       100       110       120       130       140       150       160

     170       180       190       200       210       220       230       240
     |         |         |         |         |         |         |         |
MLLNTKNSTTEHDADMKKSQNNITELYNVSIRVSLPIPPETNVSIVCVLQLEPSKTLLFSLPCNIDAKPPVQPPVPDHILWI
 •• ••••• • •  • ••• • •••• •••  •   •  •               •• •        •   •     •   
VLLRTKNSTIEYDGIMQKSQDNVTELYDVSISLSVSFPDVTSNMTIFCILETDKTRLLSSPFSIELEDPQPPPDHIPWITAV
     |         |         |         |         |         |         |         |
     170       180       190       200       210       220       230       240

   250       260       270       280       290       300       310       320
   |         |         |         |         |         |         |         |
AALLVTVVVVCGMVSFVTLRKRKKKQPGPSNECGETIKMNRKASEQTKNRAEVHERSDDAQCDVNILKTASDDNSTTDF
       • •          •                          •
LPTVIICVMVFCLILWKWKKKKRPRNSYKCGTNIMEREESEQTKKREKIHIPERSDEAQRVFKSSKTSSCDKSDTCF
   |         |         |         |         |         |         |         |
   250       260       270       280       290       300       310       320
```

FIGURE 26

1 MGLSNILFVM VLLLSGAASL KSQAYFNETG ELPCHFTNSQ

41 NLSLDELVIF WQDQDNLVLY ELYRGQEKPH NVNSKYMGRT

81 SFDQATWTLR LHNVQIKDKG SYQCFIHHKG PHGLVPIHQM

121 SSDLSLLANF SQPEINLLTN HTENSVINLT CSSTQGYPEP

161 QRMYMLLNTK NSTTEHDADM KKSQNNITEL YNVSIRVSLP

201 IPPETNVSIV CVLQLEPSKT LLFSLPCNID AKPPVQPPVP

241 DHILWIAALL VTVVVVCGMV SFVTLRKRKK KQPGPSNECG

281 ETIKMNRKAS EQTKNRAEVH ERSDDAQCDV NILKTASDDN

321 STTDF